

## Astra-EX

### 2-Port Integrated UHF RAIN RFID Reader

Driven by ThingMagic's powerful Mercury6e (M6e) UHF RFID Module, Astra-EX is an easy to install, unobtrusive, integrated 2-port RAIN reader/antenna designed for office and commercial environments. Power-over-Ethernet (PoE) and Wi-Fi options allow for flexible, low cost, single cable installations. Astra-EX blends in well with corporate IT infrastructures and office layouts, and offers full support for ThingMagic's enterprise-class MercuryAPI software.



Tag/Transponder Protocols	
RFID Protocol Support	EPCglobal Gen2 (ISO 18000-6C) with DRM ISO 18000-6B (optional)
UHF RFID Antenna Interface	
Integrated Antenna	Integrated 8.5 dBiC antenna
External Interface	RP-TNC connector
RF Output Power	5 dBm to 31.5 dBm (1.4 W) to external port; up to +30 dBm (1W) to integrated antenna <sup>2</sup>
RF Output Power Accuracy	+/- 0.5 dBm above +15 dBm
Frequency Range Per Region	FCC 902-928 MHz (Americas) ETSI 865.6-867.6 MHz (EU)TRAI 865-867 MHz (India) ACMA 920-926 MHz (Australia)
Data/Control/Wireless Interfaces	
Connectors	RJ45 (10/100 Base-T Ethernet) USB Type B (console port) USB Type A (accessory port) HD15 (GPIO interface) Screw-lock 5.45 mm plug with 2.5 mm center pin (DC Input) RP-SMA (Optional WiFi Antenna)
Optional WiFi	Internal 802.11 b/g WEP 40-bit and 104-bit keys; WPA & WPA2 with TKIP and AES algorithms (pre-shared keys or EAP-TLS)
GPIO	4 opto-isolated inputs, 4 opto-isolated outputs, +5V source, ground reference
Indicators/Switches	Two color status LED, reset switch
MercuryOS Features	
Networking	Cisco-certified DHCP and DNS-based configuration and firmware management, TCP/IP networking stack.
Security	SSL/SSH-based security
Web-based Control	Configuration, monitoring, and reading from a web browser via HTTP or HTTPS
Application Interface	
Direct Communication	EPCglobal Low Level Reader Protocol (LLRP) v 1.1 with multi-protocol and advanced feature extensions
On-Reader API	C API
Host API	Java, C or .NET API

Power	
Power Over Ethernet	802.3af in both modes A and B (Supports 100m cable)
External DC Power	10- 30 VDC supply voltage Maximum DC power: 15 W
Optional AC Adapter	100-240 VDC, 1.5 A RMS max, 47-63 Hz
Physical	
Dimensions	26.1 cm L x 26.1 cm W x 7.6 cm H (10.2 in L x 10.2 in W x 3.0 in H)
Weight	4.5 lbs (2.0 kg)
Environment	
Operating Temp.	-20 C to +50 C
Storage Temp.	-40 C to +85 C
Humidity	5% to 95%, non-condensing
Regulatory and Safety	
Regulatory	FCC 47 CFR Ch. 1 Part 15; Industrie Canada RSS-21 0 ETSI EN 302 208 v3.1.1 (RED 2014/53/EU)
Other	ROHS Compliant IEC 60950-1(ed.2) US-17669-UL
Architecture	
Processor	Intel IXP420 Network Processor
Operating System	Linux kernel version 2.6
DRAM Memory	64 MB
Flash Memory	32 MB
Performance	
Max Tag Read Rate	More than 750 tags per second <sup>3</sup>
Max Read Distance	Over 30 feet (9m) with integrated antenna

## Ordering Information

Astra-EX Reader with POE North America Europe India Australia	A6-NA-POE A6-EU-POE A6-IN-POE A6-AU-POE
Astra-EX Reader with Integrated WIFI <sup>1</sup> North America India Australia	A6-NA-WIFI A6-IN-WIFI A6-AU-WIFI
AC Indoor Power Adapter North America Europe Australia	PWRADP-M6-NA PWRADP-M6-EU PWRADP-M6-AU

<sup>1</sup>Requires AC Adapter

<sup>2</sup>Maximum power may have to be reduced to meet regulatory limits, which specify the combined effect of the module, antenna, cable, and enclosure shielding of the integrated product.

<sup>3</sup>Measured in controlled test, field results may vary

Specifications subject to change without notice.

## MAKING RFID EASY TO USE

ThingMagic is dedicated to driving the barriers to deploying RFID technology as low as possible. We design our products to be easy to use out-of-the box and to deliver predictable, reliable, and repeatable performance. Our development tools require little RFID expertise, enabling you to rapidly design, test, and deploy your RFID solutions.

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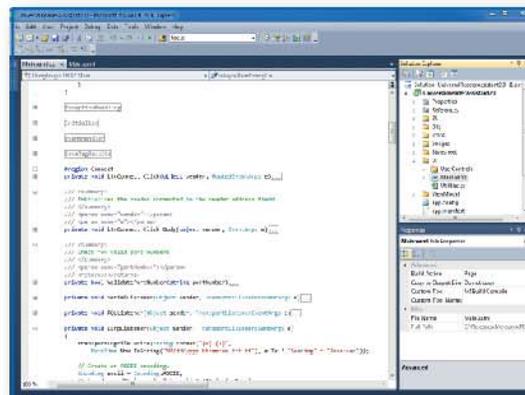
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## Mercury API

A common development platform, supporting an extensive variety of hardware to connect, configure, and control ThingMagic readers.

## Universal Reader Assistant

A utility for advanced demo, testing, and tuning of all ThingMagic readers. Reduces complexity for novice users while permitting low-level control for advanced developers.



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